ALCANTAR & KAHL LLP

120 Montgomery Street
Suite 2200
San Francisco CA 94104
415.421.4143 phone
415.989.1263 fax

June 22, 2005

Maryam Ebke
Acting Director
Division of Strategic Planning
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102

Thom Kelly
Assistant Executive Director
California Energy Commission
1516 Ninth St.
Sacramento, CA 95814 MS39

Re: Comments of the Cogeneration Association of California and the Energy Producers and Users Coalition on the Draft Energy Action Plan II

Dear Ms. Ebke & Mr. Kelly:

The Cogeneration Association of California[1] (CAC) and the Energy Producers and Users Coalition[2] (EPUC; jointly, CAC/EPUC) submit these comments on the draft Energy Action Plan II (EAP II), issued June 8, 2005. These comments are submitted to the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC; together, Joint Agencies) pursuant to the agenda for the Joint Agency EAP Meeting on June 15, 2005.

[1] CAC represents the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

[2] EPUC is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP America Inc. (including Atlantic Richfield Company), Chevron U.S.A. Inc., ConocoPhillips Company, ExxonMobil Power and Gas Services Inc., Shell Oil Products US, THUMS Long Beach Company, Occidental Elk Hills, Inc., and Valero Refining Company - California. Together, CAC and EPUC member companies produce fuels, electricity and major cogeneration operations with capacity in excess of 1500 MW in California.

I. INTRODUCTION AND SUMMARY

The draft EAP II's stated goals are, "*for California's energy to be adequate, affordable, technologically advanced, and environmentally sound."* (EAP II, Page 2.) To achieve these goals, the Joint Agencies should make two revisions to EAP II. First, the EAP II should be revised to explicitly include Combined Heat and Power (CHP) as a preferred resource in the Loading Order, on par with renewables. Second, the EAP II should be revised to include the goal of reasonable reformation of the California Independent System Operator (ISO) tariff as recommended in Appendix A as part of efforts to reform the electricity market structure.

The EAP II continues to support the Loading Order established by EAP I. (*See* EAP II, at 3.) That Loading Order, however, does not explicitly include CHP as a separate and distinct preferred resource after conservation and demand response and equal to renewables. This glaring omission in the Loading Order must be rectified now. If CHP were explicitly included in the EAP II Loading Order on par with renewables:

- *Adequate energy supply could be achieved in part by retention of substantial, historically reliable existing CHP and the significant potential for additional CHP;*
- *Affordable energy prices for California ratepayers could be sustained in part through signaling the encouragement of private capital investments for large CHP not subsidized by incentive payments or public purpose program funding;*
- *Technologically advanced, reliable energy would be produced by the cogeneration process that employs a single fuel to create two useful forms of energy in connection with industrial processes; and*
- *Environmentally sound CHP projects would produce significant natural gas savings, energy efficiencies and greenhouse gas emission reductions.*

EAP II also sets forth a roadmap of key actions for the specific action areas. The EAP II action areas are: energy efficiency; demand response; renewables; electricity market structure; electricity infrastructure; natural gas supply and demand; transportation fuels; research, development and demonstration; and climate change. These last three action areas are new to the EAP and represent new policy directions for implementation by the Joint Agencies. CHP, in addition to fitting squarely within each of the goals of EAP II, fits well within most of these key action areas. These action areas, with key action items, are specified in detail in EAP II. The Joint Agencies should add the following goal to the detailed actions for electricity market structure the following goal: "*Reasonably Reform the ISO Tariff to be Consistent with Encouragement of CHP*."

Policy makers, ratepayer advocates and non-utility power producers have recognized that, while some progress has been made, much remains to be done to assure California's energy supply. Explicitly adding CHP to the Loading Order and reforming the ISO Tariff to encourage CHP will help secure California's energy supply. It will do this by signaling to customers who have invested in CHP that those investments are valued and encouraging further private investments in CHP resources.

Regulatory community concern regarding the adequacy of the state's energy supply, particularly for the summers of 2005 and 2006 is based in part on ISO information. The ISO presentation at the Joint Agency EAP Meeting showed reserve margins for this summer ranging from 5.2% (1 in 2 scenario) to 0.8% (1 in 10 scenario). (*See* California ISO Update, Summer 2005 Outlook, at 5.) EAP II finds that "*[c]urrent estimates show a statewide need for 1500-2000 MW [of new generating resources] per year.*" (EAP II, Appendix A, at 4.) California does not have the luxury of adequate energy margins or a secure energy supply. The clear investment gap is a challenge that must be faced. Secretary McPeak asked at the Joint Agency EAP Meeting, "*What can these agencies do to be better prepared?*"

What can be done now? First, the Joint Agencies can revise the draft EAP II to unequivocally include CHP as a preferred resource in the Loading Order, on par with renewables. Second, the Joint Agencies should include in EAP II the goal of reasonable ISO Tariff reform to be consistent with encouragement of CHP.

II. CHP FITS SQUARELY WITHIN EACH SPECIFIC GOAL OF THE EAP II AND SHOULD BE EXPLICITLY INCLUDED IN THE LOADING ORDER ON PAR WITH RENEWABLES.

CHP is a reliable, privately-financed, very efficient, and environmentally sound in-state resource for electricity supply. The Assessment of California CHP Market and Policy Options for Increased Penetration (CHP Report), commissioned by the CEC and issued April 2005, states, "*CHP could have a significant role to play in supporting California's Loading Order.*" (CHP Report, at v.) As noted by Commissioner Geeseman at the recent CEC CHP Workshop, "*If I'm interested in installed MW, isn't that [the larger CHP facilities] where I want to go?"* (CEC IEPR CHP/DG Market and Policy Workshop Transcript, at 240:10-12, CEC Commissioner Geeseman (April 28, 2005); *see also Id.*, at 245:5-10, CEC Advisor S. Tomashefsky (*"we established the Loading Order concept really with the '03 report. What we're doing is refining it, and I think this becomes a major input to try and determine where cogeneration [CHP] fits in the grand scope of that."*).)

According to the CHP Report, most of the existing CHP MW, 90% of 9,130 installed CHP MW, are in large CHP facilities. A majority of these large CHP sites depend on the ability to export surplus power in a manner consistent with

CHP operating characteristics.[3] Large commercial or industrial entities employ CHP first and foremost to meet their thermal requirements. They must be able to cost-effectively export the electrical energy associated with the thermal requirement that is produced by CHP. CHP Qualifying Facility (QF) power contracts have historically enabled the necessary exports. These contracts expire at a significant rate over the next 5 to 7 years. By 2008, expired CHP QF contract capacity is expected to exceed 1,000 MW and approach 1,800 MW by 2010. (*See* California Public Utilities Commission D.04-01-050, at 135-136.)

A. If Sent the Right Signal by the Joint Agencies, CHP Could Help California Attain an Adequate Energy Supply.

The first goal of EAP II for California's energy supply is adequacy. (*See* EAP II, at 2.) At the Joint Agency EAP Meeting, Secretary McPeak noted the Governor's concern about the fact that there was no "cushion" in our energy supply for the expected increase in economic activity. Not only is there no cushion of excess available energy in our energy supply, there also might be mistaken assumptions about the security of the existing baseload-energy supply. Existing, reliable CHP currently provides enough electricity to meet 12% of California electricity demand. Approximately 16% of PG&E's total generation is provided by QF CHP; about 18% of SCE total generation is supplied by QF CHP. It should not be assumed that, once QF CHP contracts expire, these CHP facilities will continue their beneficial operations through 2020, or that additional private investment will result in new CHP resources, without any regulatory action.[4]

Reliable steam supply for enhanced oil recovery and petroleum refining is more important to the industries providing the vast majority of existing CHP MW than the operation of the CHP facility. These companies will only run their CHP facilities if they are cost-effective, have a reasonable assurance of operational durability, and do not risk production of the core business product. The existing CHP facilities might not maintain their cogeneration operations, and new CHP facilities might not be installed without a clear signal of regulatory encouragement by the Joint Agencies; that clear signal should be that CHP resources are recognized as having many of the same values as renewables and demonstrated by placing CHP in the Loading Order on par with renewables.

Importantly, CHP installations also have opportunities to expand operations, capturing greater efficiencies in the associated industrial process and

---

[3] Importantly, most, if not all CHP facilities need to have baseload power sale contracts in order to operate due to the basic fact that CHP is tied to an industrial process and therefore are not dispatchable.

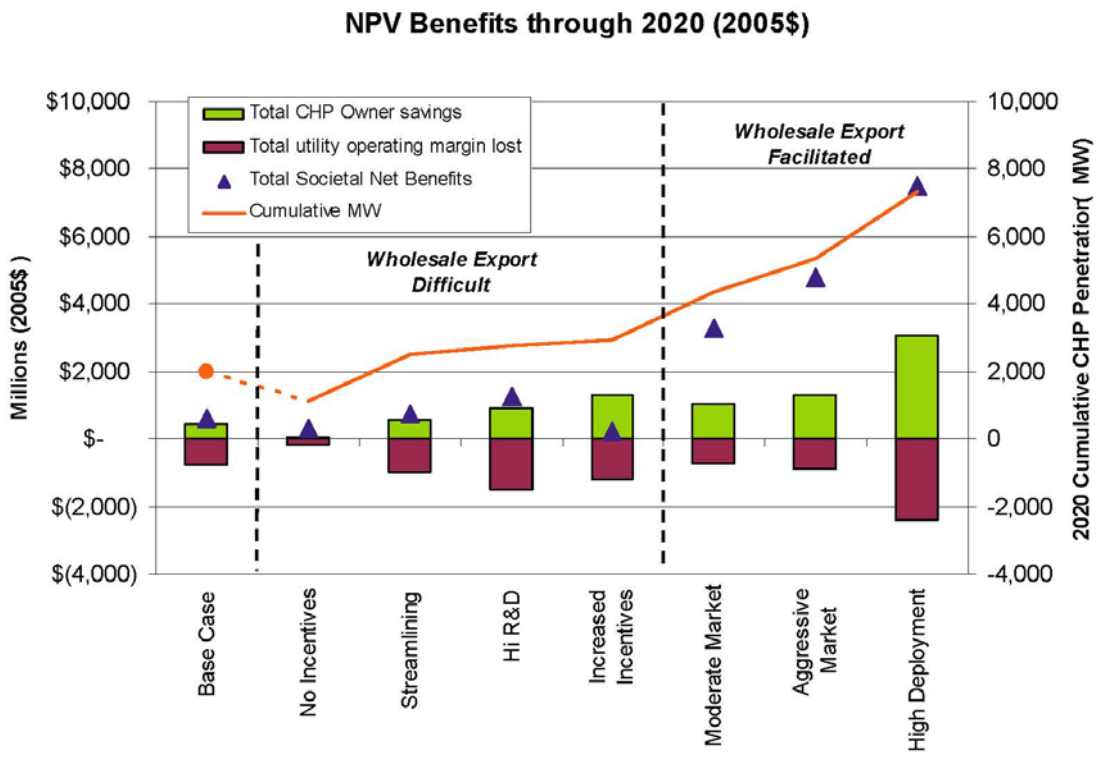
[4] To the contrary, the CPUC is currently considering a requirement that the utilities supply portfolios discriminate against gas-fired CHP in favor of renewables in R.04-04-026. This short-sighted approach disregards entirely the significant and real natural gas savings and emission reductions achieved by CHP.

in production of useful energy, both electric and thermal. The CHP Workshop, held by the CEC on April 28, 2005, showed that the State has missed some opportunities for significant expansion of large CHP sites. The CHP Workshop discussion revealed that when unable to export excess electricity to the utilities, entities would install boilers rather than a large CHP unit, choose not to expand CHP operations, or choose not to install CHP at all. (*See* CEC IEPR CHP/DG Market and Policy Workshop Transcript, at 29-93 (April 28, 2005).) Again, the Joint Agencies must recognize that the primary focus of the large CHP facilities is their core business product. Hence the logical choice for these facilities, if their ability to export excess electricity appeared unwelcome and not valued, would be to install traditional boilers to meet thermal demands.

At the Joint Agency EAP Meeting, Secretary McPeak asked Southern California Edison Company, "*What is missing for an environment for serious investment?*" The clear answer is the lack of an ability of CHP facilities to contract with the utilities to export their excess electricity. As CEC Commissioner Geeseman noted, the market question must be tackled and the long term contract issues have to be resolved. Despite the fact that the utilities have the authority to enter long-term contracts, that is not happening with CHP operations. Explicit inclusion of CHP as a preferred procurement resource on par with renewables in EAP II would help provide the needed regulatory encouragement of CHP and enable CHP to help secure an adequate energy supply for California.

B. Large CHP Operations Could Offer Affordable Energy to the Utilities to Serve Ratepayers.

CEC Chair Joe Desmond, in response to Sean Gallagher's (Energy Division) discussion about the renewable portfolio standard, said, "*We don't want to lose sight of cost effectiveness in terms of discussions about renewables."* Cash incentives or public goods funds, needed for development of renewables, generally are not needed to finance large CHP operations. These large CHP sites achieve economies of scale and are mostly privately financed. History proves that these facilities have provided the most CHP MW to the State in the past. (*See* CHP Report, Figures 2.1 and at 2-1.) Large CHP projects generally have long economic lives. Moreover, as demonstrated in the CHP Report, CHP, when able to export excess electricity, provides significantly more benefits to society as a whole and to the CHP user than overall costs to the utility. (*See* CHP Report, at 4-2, 4-3, 7-1.)



(CHP Report, Figure 4.1, at 4-3 showing the high level of total societal net benefits achieved by moderate market, aggressive market and high deployment cases as compared to the assumed total utility operating margin lost.) This chart reflects CHP projects that receive incentive payments funded by public purpose program charges. Importantly, large CHP facilities are cost effective resources that do not need to be subsidized by public purpose program funds.

C. CHP Operations Are Technologically Advanced.

CHP produces both thermal and electric energy from a single fuel source. CHP/CCHP "*typically have higher efficiency than central station generation*." (CHP Report, at 7-1.) These resources are also incredibly reliable.

> *CHP projects are inherently reliable. As demonstrated in Table IV-10 of SCE's Exhibit SCE-1, Volume 1, SCE's total cogeneration facilities under contract have operated at an average 89% capacity factor. This operating statistic compares very favorably with that of other baseload type resources. For example, the annual average capacity factor for all nuclear units reported to the North American Electric Reliability Council for the period 1998 through 2002 was 84.7%.*

(Exhibit 124, Prepared Direct Testimony of James A. Ross on behalf of the Cogeneration Association of California, served August 6, 2004 in CPUC Proceeding, R.04-03-004 (Ex. 124), at 21-22.)

D. CHP Resources, Like Renewables, Are Environmentally Sound.

EAP II adopts rapid acceleration of targets for renewables procurement, to 33% of utility energy sales in 2020. EAP II justifies the aggressive targets by citing decreased greenhouse gas emissions, temperance of increasing dependence on natural gas, and alleviation of the associated risks of price volatility. (*See* EAP II, at 6.) These justifications for renewables also apply to CHP. Moreover, CHP is superior to renewables in some ways. For example, existing CHP installations, unlike for most renewables, already have the necessary infrastructure in place to deliver electricity to the utilities to help serve California ratepayers. In fact, in many instances this infrastructure was paid for by the CHP installation as a special facility, and not paid for by other ratepayers. Many CHP projects also are superior to renewables in terms of availability and reliability.

1. CHP Installations Are Energy Efficient.

QF CHP installations are the most effective and successful energy efficiency installations in California. The CHP Report states that the use of CHP could "*improve the overall efficiency of energy use by displacing fuel use for boilers while at the same time displacing marginal, predominantly gas fired sources of electricity generation."* (CHP Report, at v.) Large CHP sites have enough need for thermal energy to capture all of the efficiencies of CHP. They are able to maintain the required level of operations to secure all of the efficiencies of the dual use of a single fuel. Large CHP sites meet federal and state efficiency standards and achieve high levels of energy efficiency.

2. CHP Greatly Reduces Natural Gas Consumption.

CHP reduces the State's consumption of natural gas through thermal efficiencies. According to the CHP Report, natural gas savings achieved by CHP range between 400 trillion Btus of energy savings and 1,900 trillion Btus of energy savings. (*See* CHP Report, at ix.) Based on publicly available data, CHP facilities have saved enough California natural gas each year to provide electricity to over four million homes each year. As explained in the CPUC umbrella procurement proceeding, R.04-04-003, CHP reduction of natural gas usage is significant.

> *Customers that employ existing QF cogeneration technologies reduce their overall demand for natural gas because of the improved thermal efficiencies associated with cogeneration. This occurs by replacing less efficient boilers consuming natural gas*

with more efficient cogeneration equipment that produces both electricity and thermal output using the same input fuel. Thus, the overall consumption of natural gas in the State is also reduced. In addition, certain existing QF cogeneration facilities, such as those located at petroleum refineries, increase fuel efficiency by consuming waste fuels from the manufacturing process that might otherwise be flared. The CEC CHP Report estimated that the total energy savings associated with this waste heat recovery is about 150 Trillion Btus. In terms of natural gas usage, that is equivalent to the annual fuel consumption of a 2,100 MW base-loaded power plant that operates with a heat rate of 10,000 Btu/kWh and at an 80% capacity factor.

(Ex. 124, at 22-23.) CHP projects also increase the overall thermal efficiency of California natural gas consumption:

The combined thermal efficiency of existing base load QF cogeneration projects is significantly better than existing efficient combined-cycle facilities at optimum operating conditions. Current combined-cycle power plants have historically operated at thermal efficiencies of about 54%, while combined power and heat plants (i.e., cogeneration) have achieved thermal efficiencies in the enhanced oil recovery application of about 80%. Moreover, based on the 2002 average heat rate for natural gas-fired power plants reported in the 2003 Environmental Performance Report, California Energy Commission, Staff Report, August 2003, the thermal efficiency for the State's 2002 gas-fired resources was less than 40%.

As indicated in the CEC CHP Report, the production of two energy products from a single fuel source reduces California's reliance on natural gas and natural gas transportation for electricity generation and enables significant reductions in air emissions at major industrial sites.

(Ex. 124, at 23.)

3. CHP Aids Climate Change Efforts by Reducing Greenhouse Gas Emissions.

The Governor's new Climate Change Policy was briefly discussed at the Joint Agency EAP Meeting; it was strongly supported by the Joint Agencies. The Governor's new policy includes CO_2 emission reductions targets of 59 million tons by 2010 and 145 million tons by 2020. (*See* Summary of Governor's Climate Change Policy, distributed at Joint Agency EAP Meeting.) 72 million tons of CO_2 would be saved each year if an additional 4,377 MW of CHP were deployed. (*See* "DG Benefits Assessment Methodology". Presentation by

Snuller Price, Energy & Environmental Economics, Inc. Online April 26, 2005, at 11) CHP emissions reductions range between an incremental CO_2 emissions reduction of 25 million tons associated with 1,966 additional CHP MW and an incremental CO_2 emissions reduction of 120 million tons with 7,340 additional CHP MW. (*See Id; see also* CHP Report, at ix.)

Clearly, CHP can do much to accomplish the aggressive CO_2 emission reductions targets in the Governor's new policy. Adding 7,340 MW of CHP over the next four years would both contribute to securing California's energy supply (which needs an estimated 1500 to 2000 MW per year) and reducing CO_2 emissions by 120 million tons. This would leave, in 2009, a mere 24 million tons of CO_2 reductions needed to meet the Governor's aggressive target emissions reduction level for 2020. As the Joint Agencies strongly support the Governor's new Climate Change Policy, so should they strongly support CHP and include it as a preferred resource in the EAP II Loading Order on par with renewables.

The Joint Agencies need to act now explicitly include CHP as a stand-alone preferred resource on par with renewables. At a minimum, the Joint Agencies should clarify that CHP is encompassed in the Loading Order as Distributed Generation. The Joint Agencies should also promote reasonable reformation of the ISO Tariff to conform with encouragement of CHP.

III. EAP II KEY ACTIONS IN THE ELECTRICITY MARKET STRUCTURE SHOULD INCLUDE REASONABLE REFORMATION OF ISO TARIFF CONSISTENT WITH ENCOURAGEMENT OF CHP.

As noted above, CHP facilities are tied to industrial processes where the thermal energy is of primary importance, unlike utility and merchant generators where the business of producing and selling electricity is more important.[5] This key difference is generally not recognized by the ISO Tariff. Indeed, the ISO has improperly attempted to treat CHP as if it were a merchant or utility generator and as if the load served by CHP should be assessed ISO charges.[6] The Federal Energy Regulatory Commission has determined that the ISO may not

---

[5] Practical operational differences exist between merchant plants and CHP facilities. Merchant plants can generally increase or decrease their production to accommodate the need for more or less electrical power on short notice. Changes to a merchant plant's scheduled maintenance outages solely impact when electrical power is produced. On the other hand, a CHP facility is designed to produce both thermal energy and electrical power through a sequential process that ties the thermal energy and electrical production together. Indeed, the development of a CHP operation is driven in large part by a need for thermal energy, not to produce and sell electricity into the market. Accordingly, a CHP facility's thermal obligations constrain the ability of the plant to increase or decrease the amount electric power produced at any given point in time. The CHP facility's maintenance outage may be directly tied to the time when the equipment using the thermal energy is scheduled for maintenance.

[6] *See* CAC/EPUC Comments on 2005 Energy Report - CHP Workshop, dated May 6, 2005, filed with the CEC.

treat CHP resources as it treats utility and merchant generators and that it may not improperly allocate costs and then assess charges to load served by CHP.

Reform of the ISO Tariff is required to prevent existing and future, improper efforts: (a) to exercise regulatory authority, such as dispatch and curtailment authority, over Customer Generation (including CHP); and, (b) to impose charges through the inappropriate allocation of costs. Wrongful assessment and allocation of ISO charges is linked directly to the ISO's incorrect use of total potential load, or Gross Load, rather than the quantity of electricity imported utilizing the Grid, or Net Load. Using Gross Load, rather than Net Load, for assessing and billing of transmission related costs inaccurately relies upon two fictitious assumptions: (1) that the Customer Generation is dedicated to the Grid and always supplies its total output to the Grid; and (2) that the Gross Load is always imported from the Grid regardless of the supply from Customer Generation. Such fictitious assumptions are prohibited by federal regulation and also serve to discourage Customer Generation installation.

Notably, Valero Refining Company – California (Valero) has an empty slot where it had hoped to install an additional large CHP unit. Indeed, Valero already has the necessary permit from the CEC for this unit. But Valero's consideration of installing an additional CHP unit has been chilled by PG&E's insistence on requiring Valero to comply with the unnecessary, overly burdensome and complex ISO Tariff. Valero also runs its existing turbine below full capacity to avoid participating in the ISO wholesale market. As a result, a portion of the resource is wasted needlessly despite the concern of an overall resource shortfall this summer. This could be corrected if PG&E would agree to purchase the excess energy without forcing Valero to comply with the ISO Tariff. PG&E, however, has refused to do so.

This, and similar situations, might be addressed by reasonable reform of the ISO Tariff. Specifically, end-use customer electric energy consumption served by Customer Generation should be clearly excluded from regulation and cost allocation. Customer Generation includes CHP, DG and any other type of generation that is constructed and operated wholly or in part to serve end-use load over either privately funded or utility dedicated customer facilities. The Joint Agencies should include as a key action item for electricity market structure this reasonable reform of the ISO Tariff to address these issues and encourage CHP. A proposed modification to the ISO Tariff which would address current deficiencies and allow the ISO Tariff to be consistent with encouragement of CHP is attached as Appendix A.[7]

[7] The suggested changes in Appendix A are identical to those included in the CAC/EPUC Comments to the CEC on May 6, 2005, regarding the CHP Workshop.

IV. CONCLUSION

CHP should explicitly be added as a preferred resource in the Loading Order in EAP II on par with renewables. At a minimum, the Joint Agencies should clarify that CHP is included in the Loading Order as DG. ISO Tariff reform should be included in EAP II and undertaken as part of the efforts related to electricity market structure. When the new draft 2005 EAP II was presented by CEC Commissioner Pfannensteil and CPUC Commissioner Gruenich, both said they were actively seeking input on the draft EAP II. The Joint Agencies should provide further opportunities for stakeholder input into the draft EAP II.

Respectfully submitted,

Michael Alcantar and Rod Aoki

Counsel to the Cogeneration Association of California

Evelyn Kahl and Nora Sheriff

Counsel to the Energy Producers and Users Coalition

cc: Secretary Sunne Wright McPeak
Secretary Alan Lloyd
Secretary A. G. Kawamura
Secretary Michael Chrisman
CPUC Commissioners
CEC Commissioners

CAC/EPUC Attachment

Addition to Section XX of the ISO Tariff

Customer Generation

Nothing contained in the Tariff, any Service Agreement, any Network Operating Agreement, any Participating Generator Agreement, any Meter Service Agreement, any protocol, any schedule or any appendix to same shall be construed as applying any charge, or any fee to End-use Customer electric consumption to the extent that electric energy consumption is served by Customer Generation located behind the End-use Customer Withdrawal Point. Such charge or fees shall include, but not be limited to: any transmission service charge; any transmission access charge; any ancillary service charge; any transmission congestion management charge; any scheduling charge; any scheduling, system control, and dispatch charge; any energy administration charge; any reliability administration charge; any generation imbalance service charge; any loss compensation service charge; any market administration charge; any control area service charge; any capacity adequacy charge; transmission rights charge; market support charge; regulation and frequency response charge; internal energy transaction charge; any capacity resources and obligation management charge; management service charge; any grid management charge; or any cost of recovery adder charge.

Nothing contained in the Tariff, any Service Agreement, any Network Operating Agreement, any Participating Generator Agreement, any Meter Service Agreement, any protocol, any schedule or any appendix to same shall be construed as affecting in any way the ability of Customer Generation to serve: (1) any End-use Customer electric consumption to the extent that electric energy consumption is served by Customer Generation located behind the End-use Customer Withdrawal Point or (2) any Thermal Requirement of a Cogeneration Facility.

Nothing contained in the Tariff, any Service Agreement, any Network Operating Agreement, any Participating Generator Agreement, any Meter Service Agreement, any protocol, any schedule or any appendix to same shall be construed as requiring the installation of any metering, any monitoring, any control equipment or any telemetering to monitor Customer Generation output that is not injected into an Operator's grid.

Definitions:

Operator: The California Independent System Operator Corporation.

Customer Generation: Generation that includes renewable power, cogeneration, distributed generation, fuel cells or any other type of generation that is constructed and operated wholly or in part to serve End-use Customer load over either privately funded or utility, customer-dedicated facilities.

End-use Customer Withdrawal Point(s): The point(s) of the End-use Customer's interconnection with the Operator's publicly dedicated wires; typically located at the site boundary. The metering of power flowing into the End-use customer's facility may occur at different points in which case consolidated power flows recorded at multiple points will be used to establish the demand.

Utility Dedicated End-use Customer Facilities: Facilities that are dedicated to a specific customer or set of customers in order to provide interconnection to the Operator's Grid. Such facilities are not dedicated for public use and are distinguished from Operator's publicly dedicated wires and Operator facilities. For the purposes of establishing the End-use Customer Withdrawal Point there is no difference between private facilities and utility dedicated customer facilities.

End-use Customer: A purchaser of electric power who purchases such power to satisfy its energy consuming equipment and who does not resell the power. An End-Use Customer must have as its Designated Agent or, in the case of a bundled customer, be included in the aggregated load of a Scheduling Coordinator.

Cogeneration Facility: The equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam) and commonly referred to as Combined Heat and Power (CHP), used for industrial, commercial, heating, or cooling purposes through the sequential use of energy.

Thermal Requirement: The thermal energy required to sustain any industrial or commercial process, or sustain any heating or cooling application.